

SHEET INDEX

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SYMBOL
CIRCUIT PACK DRIVER
ELEMENT IDENT

ITEM	MOD.	FUNCT.	QTY.	LOC.
100		I	203	243
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103		I	206	246
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432		I	511	243
433		I	512	

REGRO OF EHANGES

RECORD OF EVIDENCE				
DWG ISS	PREV FURN	STO	MFR DISC	SEI NOT

NOTES

1. GROUND RETURN
2. UNLESS OTHERWISE SPECIFIED:
RESISTANCE VALUES ARE IN OHMS
CAPACITANCE VALUES ARE IN MICROFARADS
VALUES PRECEDED BY THE SYMBOL "(+)" ARE
OR "(MINUS)" ARE IN VOLTS
3. BATTERY AND GROUND TERMINALS FOR
INTEGRATED CIRCUITS

[illegible]

4. BATTERY AND GROUND TERMINALS FOR THIS CIRCUIT PACK ARE AS FOLLOWS:

<u>AUGUST 1991</u>	<u>TERMINAL</u>
+3	000,019
GRD	200,260

5. HORIZONTAL MOUNTING CENTERS AT 0.5 INCH.

CURRENT DRAIN: 100 MA

SYSTEM USED ON	DESIGN CONTROL
COMMON SYSTEMS	IN

MANUFACTURING REFERENCES

CATEGORY		NO.	
EIRCUIT PACK CODE		FE209	
CONNECTOR ON FRAME		947A OR 947C	
SERIES NO. IDENT	FOR LATEST GROSS A* ENHANCE		2
	ACCEPTABLE SERIES		

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET UNDER WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, ON A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE FIRST SHEET.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE FIRST SHEET UNDER IS RECOGNIZED AS THE LATEST "ISSUE NUMBER" OF THE DRAWING AS A WHOLE.

FC209 CIRCUIT PACK
LAMP AND RELAY
CIRCUIT

1198

AT&TCD
STANDARD

CPS-FC209
3 SHEETS

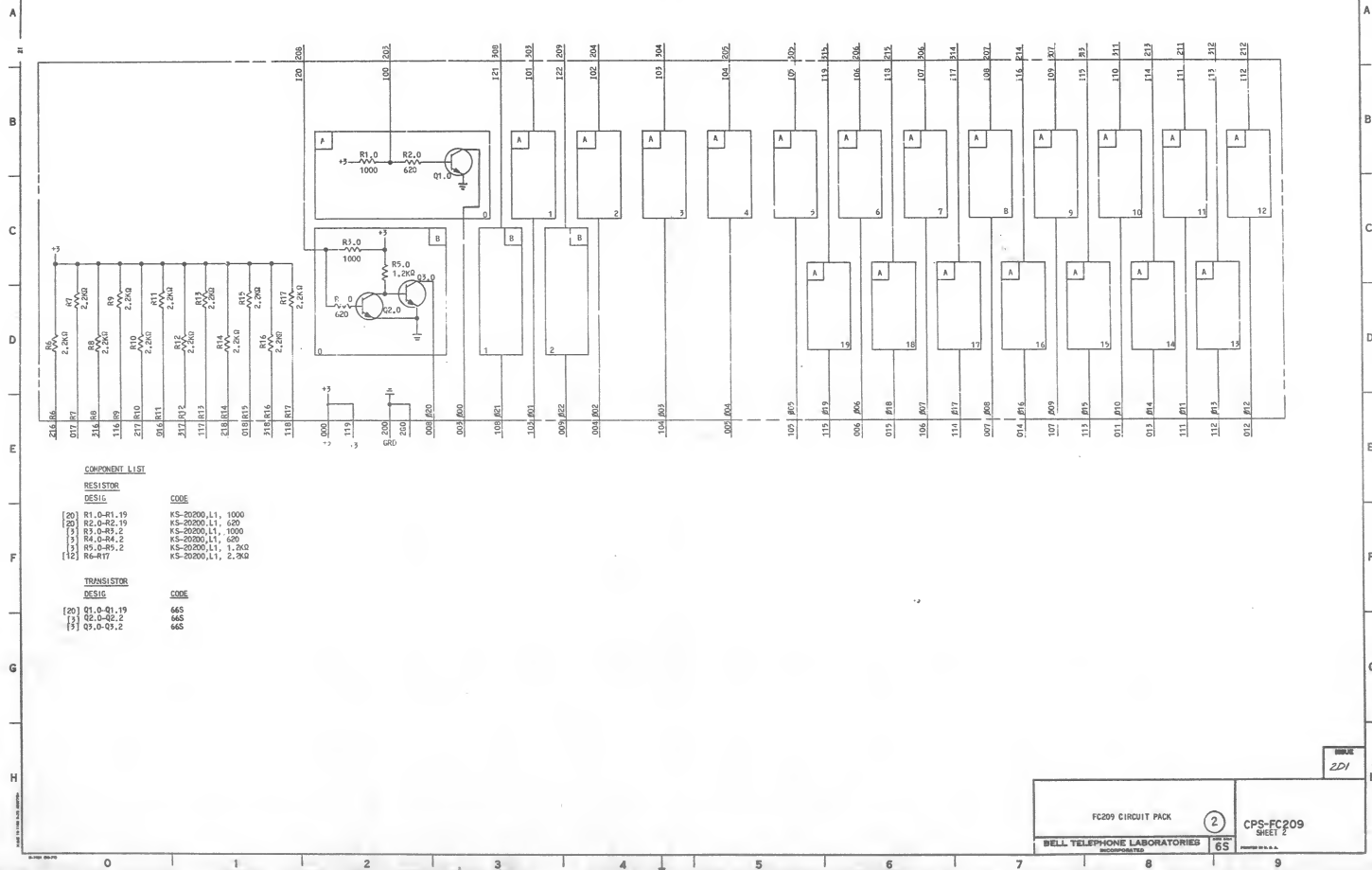
BELL TELEPHONE LABORATORIES
INCORPORATED

②

CPS-FC209
3 SHEETS

PART OF CPS FC209

LAMP & RELAY DRIVER



COMPONENT LIST

RESISTOR

QTY	DESIG	CODE
20	R1, Q-R1, 19	RS-20200, L1, 1000
20	R2, Q-R2, 19	RS-20200, L1, 620
20	R3, Q-R3, 19	RS-20200, L1, 1000
20	R4, Q-R4, 19	RS-20200, L1, 500
20	R5, Q-R5, 19	RS-20200, L1, 1.2K
20	R6-R17	RS-20200, L1, 2.2K

TRANSISTOR

QTY	DESIG	CODE
20	Q1, Q-Q1, 19	645
20	Q2, Q-Q2, 19	645
20	Q3, Q-Q3, 19	645

FC209 CIRCUIT PACK

2

BELL TELEPHONE LABORATORIES
INCORPORATED

CPS-FC209
SHEET 2

65

PRINTED IN U.S.A.

60722-50

PART OF CPS FC209

LAMP AND RELAY DRIVER

CIRCUIT DESCRIPTION

A. FUNCTION

CIRCUIT PACK FC209 PROVIDES RELAY (LAMP) DRIVER CIRCUITS AND PULLUP RESISTORS FOR USE WITH THE NO. 20 ESS AND NO. 3 ESS SYSTEM STATUS PANEL CONTROLLER (SSPC) CIRCUIT.

B. DETAILED DESCRIPTION

THIS CIRCUIT PACK PROVIDES 20 GENERAL PURPOSE LAMP/RELAY DRIVER INVERTER CIRCUITS AND 3 DOUBLE-INVERTER LAMP/RELAY DRIVER CIRCUITS. THE SIGNAL SOURCE THAT CONTROLS THESE CIRCUITS MUST BE CAPABLE OF SINKING 3.5 MA CURRENT AT V MAX IN LESS THAN 0.4 VDC (EG. A 1A LOGIC OPEN COLLECTOR GATE). EACH DRIVER OUTPUT WILL SINK 10 MA FROM A VOLTAGE SOURCE LESS THAN 26 VDC. SINCE THIS CP IS USED IN CONJUNCTION WITH LOW-LEVEL LOGIC CIRCUITS, THE CURRENT SWITCHING SHOULD BE MINIMIZED TO AVOID NOISE COUPLING PROBLEMS.

THIS CP ALSO PROVIDES 12 GENERAL PURPOSE PULLUP RESISTORS FOR USE WITH OPEN COLLECTOR 1A LOGIC GATES.

C. SYMBOL/LEAD Nomenclature

SYMBOL

DEFINITION

101-119

INPUTS TO SINGLE-INVERTER LAMP/RELAY DRIVER CIRCUITS (A)

120-122

INPUTS TO DOUBLE-INVERTER LAMP/RELAY DRIVER CIRCUITS (B)

001-019

OUTPUTS OF SINGLE-INVERTER LAMP/RELAY DRIVER CIRCUITS (A)

020-022

OUTPUTS OF DOUBLE-INVERTER LAMP/RELAY DRIVER CIRCUITS (B)

06-077

GENERAL PURPOSE PULLUP RESISTOR OUTPUTS CAPABLE OF SOURCING 1 MA AT 0.7 VOLTS

CPS-FC209

201

FC209 CIRCUIT PACK

2

CPS-FC209

SHEET 3

BELL TELEPHONE LABORATORIES

65